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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/640,623	08/12/2003	Jeffrey Rees	10017138-1	1135
22879 7590 07/17/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER NAHAR, QAMRUN	
			ART UNIT 2191	PAPER NUMBER
			MAIL DATE 07/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/640,623	Applicant(s) REES ET AL.	
	Examiner Qamrun Nahar	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-15,17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-15,17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>04/11/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 04/11/2007.
2. The objection to the specification is withdrawn in view of applicant's amendment and remarks/arguments.
3. The objections to the claims are withdrawn in view of applicant's amendment and remarks/arguments.
4. The rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention to claims 1-21 is withdrawn in view of applicant's amendment and remarks/arguments.
5. The rejection under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter to claims 13-16 and 21 is withdrawn in view of applicant's amendment and remarks/arguments.
6. Claims 1, 8-10, 13-14, 17 and 19-21 have been amended.
7. Claims 2, 16 and 18 have been canceled.
8. Claims 1, 3-15, 17 and 19-21 are pending.

Response to Amendment

Claim Objections

9. Claims 3-5 and 19 are objected to because of the following informalities: these claims depend on canceled claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Oulu (U.S. 6,792,460).

Per Claim 21:

The Oulu patent discloses:

- **deploying a script entity on said web browser** (“... Each agent 110 can be remotely configured to periodically execute a particular script or executable that specifies one or more user transactions to be executed between that agent 110 and the web site 112 ...” in column 4, lines 36-60; column 5, lines 36-46; and column 11, lines 52-57)
- **said script entity registering with said web server to receive one or more call backs therefrom at selected points during a transaction initiated by said web server in response to the request from the web browser** (column 4, lines 36-60)

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- utilizing said script entity to start a clock upon transmission of said request from said web browser to said web server, and utilizing said script entity to stop the clock upon receipt of a call back from said web server indicating completion of said transaction (column 4, lines 36-60 and column 11, lines 52-57).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1, 3-15, 17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oulu (U.S. 6,792,460) in view of Johnson, Mark "The Application Response Measurement (ARM) API, Version 2)", 1997 (Art of Record, hereinafter "Johnson").

Per Claim 1:

Oulu teaches inserting an instrumentation code in a bytecode representation of said method or function to effect generation of a start time marker upon start of execution of said method or function ("The probe 122 preferably instruments (adds hooks to) a monitored class by instrumenting some or all of the methods 124 within that class. As described below, a particular method is instrumented by adding a "start" call at the beginning of the method ..." in column 11, lines 52-57) and a stop time marker upon completion of execution of said method or function ("...and an "end" call at the end of the method." in column 11, lines 52-57); and utilizing said

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start and stop time markers to determine a response time of said method or function (“These calls or “hooks” allow the probe to determine whether a particular invocation of an instrumented method corresponds to a transaction that is colored for monitoring, and if it is, to record the start and stop time of that method. The start and stop times of some or all of the methods invoked by this transaction can thus be recorded. These measurements can then be aggregated at the component level to determine the amount of time spend by each component.” in column 11, lines 57-65).

Oulu does not explicitly teach generating a call to an Application Response Measurement (ARM) agent to cause the agent to effect generation of a start time marker upon start of execution of said method or function and a stop time marker upon completion of execution of said method or function, wherein the ARM agent is one of a plurality of agents of an ARM protocol. Johnson teaches generating a call to an Application Response Measurement (ARM) agent to cause the agent to effect generation of a start time marker upon start of execution of said method or function (pg. 3, 2nd column, “How to Use the API”, step 2; and pg. 4, 2nd column, “arm_start”) and a stop time marker upon completion of execution of said method or function (pg. 3, 2nd column, “How to Use the API”, step 2; and pg. 4, 2nd column, “arm_stop”), wherein the ARM agent is one of a plurality of agents of an ARM protocol (pg. 2, Figure 1. Overview of the ARM API).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by Oulu to include generating a call to an Application Response Measurement (ARM) agent to cause the agent to effect generation of a start time marker upon start of execution of said method or function and a stop time marker upon

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completion of execution of said method or function, wherein the ARM agent is one of a plurality of agents of an ARM protocol using the teaching of Johnson. The modification would be obvious because one of ordinary skill in the art would be motivated to ascertain if the method or function has hung or failed (Johnson, pg. 2, 1st column, "What is the response time?").

Per Claim 3:

The rejection of claim 1 is incorporated, and Johnson further teaches registering said method or function with said ARM agent prior to generation of said start and stop time markers (pg. 4, 1st column, "arm_init").

Per Claim 4:

The rejection of claim 1 is incorporated, and Oulu further teaches wherein said instrumentation code causes generation of said start and stop time markers without modifying instructions associated with execution of said method or function (column 13, lines 34-39).

Per Claim 5:

The rejection of claim 1 is incorporated, and Johnson further teaches wherein said ARM agent generates a record corresponding to said method or function for storing the response time associated with said method or function (pg. 2, 1st column, "How can the application or environment be tuned to perform better").

Per Claim 6:

The rejection of claim 5 is incorporated, and Johnson further teaches wherein said record includes a field for identifying a parent, if any, of said method or function in a hierarchical parent-child transaction chain (pg. 2, 1st column, “How can the application or environment be tuned to perform better”).

Per Claim 7:

The rejection of claim 6 is incorporated, and Johnson further teaches wherein said record includes another field for identifying a top level transaction in said parent-child transaction chain (pg. 2, 1st column, “How can the application or environment be tuned to perform better”).

Per Claim 8:

The rejection of claim 1 is incorporated, and Oulu further teaches wherein said software component can be any of a server page, a servlet of a server side component, a driver, a naming and directory interface (NDI) or remote method invocation (RMI) component (“... servlet ...” in column 1, line 54).

Per Claim 9:

The rejection of claim 8 is incorporated, and Oulu further teaches wherein said method or function of the software component comprises any of a Service method of a server page, a doFilter, a doGet, a doPost or a service method of a servlet, a getConnection, executeQuery, or selected methods of driver, or remote, local or home interface methods of a server side component (“... servlet ...” in column 1, lines 53-67).

Per Claim 10:

The rejection of claim 1 is incorporated, and Oulu further teaches wherein the step of inserting the instrumentation code comprises incorporating instrumentation hooks into said bytecode representation prior to or during loading and initialization of a class containing said method or function by a virtual machine (“... component load time ...” in column 1, line 43-44 and column 13, lines 16-27).

Per Claim 11:

The rejection of claim 1 is incorporated, and Oulu further teaches storing said response time in a database (“... reports server ...” in column 1, lines 48-52).

Per Claim 12:

The rejection of claim 1 is incorporated, and Oulu further teaches displaying said response time to a user (column 1, lines 64-67).

Per Claim 13:

This is a system version of the claimed method discussed above (claims 1, 11 and 12), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, this claim is also obvious.

Per Claim 14:

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The rejection of claim 13 is incorporated, and Oulu further teaches wherein said instrumentation engine inserts said instrumentation code prior to loading of a class containing said method or function by a virtual machine (“... component load time ...” in column 1, line 43-44 and column 13, lines 16-27).

Per Claim 15:

The rejection of claim 13 is incorporated, and Oulu further teaches wherein said instrumentation engine inserts said instrumentation code in said bytecode representation without modifying instructions associated with execution of said method or function (column 13, lines 34-39).

Per Claim 17:

Oulu teaches receiving, by a monitoring agent, a first call back provided by the web server indicating that the transaction has commenced (“... agent 110 ...” in column 4, lines 36-60 and column 5, line 61 to column 6, line 1; and column 6, lines 10-16); invoking, by the monitoring agent in response to receiving the first call back, a start method of an agent to save a start time marker upon start of said transaction (“The probe 122 preferably instruments (adds hooks to) a monitored class by instrumenting some or all of the methods 124 within that class. As described below, a particular method is instrumented by adding a “start” call at the beginning of the method ...” in column 11, lines 52-57); receiving, by the monitoring agent, a second call back from the web server indicating that the transaction is completed; invoking, by the monitoring agent in response to receiving the second call back, a stop method of the agent to

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save a stop time marker upon completion of said transaction (“... agent 110 ...” in column 4, lines 36-60; column 5, line 61 to column 6, line 1; and column 6, lines 10-16; “...and an “end” call at the end of the method.” in column 11, lines 52-57); and utilizing said start and stop time markers to measure the response time associated with said transaction (“These calls or “hooks” allow the probe to determine whether a particular invocation of an instrumented method corresponds to a transaction that is colored for monitoring, and if it is, to record the start and stop time of that method. The start and stop times of some or all of the methods invoked by this transaction can thus be recorded. These measurements can then be aggregated at the component level to determine the amount of time spend by each component.” in column 11, lines 57-65).

Oulu does not explicitly teach an Application Response Measurement (ARM) agent, wherein the ARM agent is one of a plurality of agents of an ARM protocol. Johnson teaches an Application Response Measurement (ARM) agent (pg. 3, 2nd column, “How to Use the API”, step 2), wherein the ARM agent is one of a plurality of agents of an ARM protocol (pg. 2, Figure 1. Overview of the ARM API).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by Oulu to include an Application Response Measurement (ARM) agent, wherein the ARM agent is one of a plurality of agents of an ARM protocol using the teaching of Johnson. The modification would be obvious because one of ordinary skill in the art would be motivated to ascertain if the method or function has hung or failed (Johnson, pg. 2, 1st column, “What is the response time?”).

Per Claim 19:

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The rejection of claim 17 is incorporated, and Oulu further teaches registering said monitoring agent with said web server to receive said call backs (column 4, lines 36-60).

Per Claim 20:

The rejection of claim 19 is incorporated, and Oulu further teaches transmitting said response time to a presentation module for presentation to a user (column 6, lines 39-49).

Response to Arguments

14. Applicant's arguments with respect to claims 1, 3-15, 17 and 19-21 have been considered but are moot in view of the new ground(s) of rejection.

In the remarks, the applicant argues that:

a) Oulu fails to teach deploying a script entity on said web browser as recited in claim 21.

Examiner's response:

a) Examiner strongly disagrees with applicant's assertion that Oulu fails to disclose the claimed limitations recited in claim 21. Oulu clearly shows each and every limitation in claim 21. Oulu teaches deploying a script entity on said web browser ("... Each agent 110 can be remotely configured to periodically execute a particular script or executable that specifies one or more user transactions to be executed between that agent 110 and the web site 112 ..." in column 4, lines 36-60; column 5, lines 36-46; and column 11, lines 52-57). In addition, see the rejection above in paragraph 11 for rejection to claim 21.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y Zhen, can be reached on (571) 272-3708. The fax phone number for the organization where this application or processing is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



QN
July 6, 2007



WEI ZHEN
SUPERVISORY PATENT EXAMINER